

ABSTRACT

A detonator system for borehole systems which include detonating cord exposed to borehole fluids, pressures and temperatures. A firing head has a sealed chamber for an electrically fired detonator and has a booster charge holder forming part of the seal. The chamber is sealed by a wire line firing sub and by the booster holder. The charge holder includes a bulkhead separating the detonator chamber from a booster charge chamber and providing part of the detonator chamber seal. The detonator explosive and the booster charge are positioned on opposite sides of the bulkhead so that upon detonation of the detonator, the bulkhead is ruptured and the explosion transfers to the booster charge and from it to the detonating cord. The firing head includes holes for attachment of borehole tools such as perforating guns or back off tools to be fired by the detonating cord.